RESPONSES TO REVIEW COMMENTS BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY FROM JULY 21, 1994, FOR THE DRAFT PICKLING ACID CRIBS FEASIBILITY STUDY (DOE/RL-94-20), HANFORD SITE, RICHLAND, WASHINGTON

General Comments

Comment: In general, the report is technically accurate and is consistent with the scope of work.

Response: Comment noted.

Comment: The report should be titled as a Remedial Investigation/Feasibility Study. Information from both the ERA investigation and risk assessment as well as the alternative analysis are included in this report. This change should be carried throughout the report.

Response: The requested change has been made.

Comment: One area of concern is that samples were analyzed for volatile organic compounds, semivolatile organic compound, anions (including nitrate/nitrite), four radionuclides, and a full range of heavy metals. However, the feasibility study discusses only two radionuclides, anions (including nitrate/nitrite), and a limited number of heavy metals. The rationale for excluding the other analytes from the discussion should be provided.

Response: Rationale for excluding the other analytes has been added to the Executive Summary and is also presented as part of the risk assessment discussion (Section 2.6).

Specific Comments

Comment: **Executive Summary, Page ES-1, second paragraph:** The basic goal of an ERA is not as stated. The goal of an ERA is mitigate a threat or potential threat to human health or the environment in an expedited fashion.

Response: The goal has been stated in Section 1.0 and indicates that the ERA was performed to reduce any residual contaminant migration from the cribs to the soil column and groundwater.

Comment: **Site Background, Page ES-1, first paragraph:** It would be beneficial to note in this paragraph the groundwater will be investigated as part of the 100-IU-2 operable unit.

Response: The requested change has been made. It should be noted that, because the 100-IU-2 Operable Unit is a source unit, another option for addressing groundwater contamination is to include this concern as part of the 100-FR-3 Groundwater Operable Unit.

Comment: **Description of the Preferred Alternative, Page ES-2**: Delete the word Preferred from the title of this section. Delete the last sentence in this paragraph and change the second sentence to read that the FS supports a No Action alternative. The function of the RI/FS is to provide information in order to make a decision. The proposed plan should set forth the preferred alternative.

Response: The requested change has been made by eliminating the heading and not using the word "preferred" in the text.

Comment: **Section 1, Page 1, last paragraph:** Include a sentence noting that the groundwater will be included as part of the 100-IU-2 operable unit.

Response: The requested change has been made. It should be noted that, because the 100-IU-2 Operable Unit is a source unit, another option for addressing groundwater contamination is to include this concern as part of the 100-FR-3 Groundwater Operable Unit.

Comment: **Section 1.2.1, Page 5, second paragraph:** The first sentence is poorly written and should be modified. Include information about the construction of the cribs (ie. two excavated trenches filled with gravel).

Response: The sentence has been revised in the manner requested.

Comment: **Section 2.2.2, Page 11, third paragraph:** Include a definition of incremental cancer risk and hazard quotient within the text.

Response: The requested definitions have been added.

Comment: **Section 2.4.1 and 2.4.2, Page 12, third paragraph:** The information concerning evidence of animals at the surface basin area is inconsistent. The last sentence of each section are contradictory. Clarify this inconsistency.

Response: The wording has been revised to clarify the point that, while signs of animal activity were observed in the general vicinity of the cribs, no similar signs were observed at the cribs themselves.

Comment: **Section 2.7.2, Page 14, first paragraph:** If total chromium is found to be above the Hanford site background a risk assessment should be completed for this contaminant using the HSRAM methodology. Comparing a reported analyte level to concentrations on the earth's crust is not acceptable.

Response: This reference to chromium concentrations in the earth's crust has been removed. It should be noted that only one soil sample (Surface Basin, Section D, sample B07Q12) exceeded ;the 27.9 mg/kg background concentration. All others were considerably less than 27.9 mg/kg (e.g., Section D average was 22.9 mg/kg). If there is sufficient concern about this single sample, then re-sampling is appropriate before initiating a risk assessment or other activities.

Comment: **Section 4.0, Page 15:** Delete "and Preferred Alternative" from the title of this section and delete the last sentence of this section. The function of the RI/FS is provide information in order to make a decision. The proposed plan should set forth the preferred alternative.

Response: The term "preferred alternative" will be deleted, as requested.